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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,262	06/26/2003	Reza Stegamat	2003P06350US	8094

7590

04/27/2005

Siemens Corporation  
Attn: Elsa Keller, Legal Administrator  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

THOMPSON, CAMIE S

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/609,262

Applicant(s)

STEGAMAT ET AL.

Examiner

Camie S. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Election filed 2/10/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 and 16-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-15 and 28-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Applicant's election of Group I, claims 1-5, 11-15 and 28-34 are acknowledged.

Applicant argues that the examination of both Groups I and II does not pose a serious burden on the examiner. Group I claims are drawn to the organic electronic device, whereas Group II is drawn to the method of fabricating the organic electronic device. Group I is a distinct invention from Group II. A different search is required for Group II claims. The restriction is still deemed proper. Thus, the requirement for restriction is maintained. Therefore, claims 6-10 and 16-27 are withdrawn from consideration.

### ***Information Disclosure Statement***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. U.S. Patent Number 5,047,687 is listed in the specification on page 10 of the specification.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu, U.S. Pre-Grant Publication 2003/0222250.

Hsu discloses a light emitting device on a substrate wherein the light emitting device comprises an anode, a cathode, an active emission layer positioned between the anode and the cathode, and a buffer layer positioned between the anode and the active emission layer (see column 1, paragraph 0006). Additionally, the reference discloses that the buffer layer is comprised of an aqueous dispersion of an electrically conducting polymer (see paragraph 0019). Paragraph 0016 of the Hsu reference discloses that the buffer layer can be applied by ink jet printing as per instant claim 3. Also, it is disclosed in the Hsu reference that there can be two or more buffer layer (see paragraph 0027). Paragraphs 0021-0025 of the reference disclose that the anode and cathode are patterned wherein the anode and cathode strips intersect to form an electrically isolated pixel as per instant claim 5. Examples 17-20 of the Hsu reference discloses that the buffer layer is comprised of 1.5 to 2.0% w/w PEDOT/PSS in water. The reference does not specifically disclose that the ratio of PEDOT to PSS is one to at most ten. However, this is an optimizable feature. The concentration of the PEDOT/PSS affects the conductivity of the

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dispersion. Discovery of optimum values of a result effective variable only involves routine skill in the art *in re Boesch*, 617, F. 2d 272, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art to have the ratio of PEDOT/PSS at 1 to 10 in order to have a buffer layer with low conductivity so as to prevent cross-talk between the line or pixels of the patterned anode (see paragraph 0022).

5. Claims 11-15 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu, U.S. Pre Grant Publication 2003/0222250 in view of Hsu, U.S. Pre Grant Publication 2004/0206942.

Hsu ('250) discloses a light emitting device on a substrate wherein the light emitting device comprises an anode, a cathode, an active emission layer positioned between the anode and the cathode, and a buffer layer positioned between the anode and the active emission layer (see column 1, paragraph 0006). Additionally, the reference discloses that the buffer layer is comprised of an aqueous dispersion of an electrically conducting polymer (see paragraph 0019). Paragraph 0016 of the Hsu ('250) reference discloses that the buffer layer can be applied by ink jet printing as per instant claim 3. Also, it is disclosed in the Hsu ('250) reference that there can be two or more buffer layer (see paragraph 0027). Paragraphs 0021-0025 of the reference disclose that the anode and cathode are patterned wherein the anode and cathode strips intersect to form an electrically isolated pixel as per instant claim 5. Examples 17-20 of the Hsu ('250) reference discloses that the buffer layer is comprised of 1.5 to 2.0% w/w PEDOT/PSS in water. The reference does not specifically disclose that the ratio of PEDOT to PSS is one to at most ten. However, this is an optimizable feature. The concentration of the PEDOT/PSS affects the

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conductivity of the dispersion. Discovery of optimum values of a result effective variable only involves routine skill in the art *in re Boesch*, 617, F. 2d 272, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art to have the ratio of PEDOT/PSS at 1 to 10 in order to have a buffer layer with low conductivity so as to prevent cross-talk between the line or pixels of the patterned anode (see paragraph 0022). The Hsu ('250) reference does not specifically disclose the conductivity of the aqueous dispersion of the buffer layer. The Hsu ('942) reference discloses aqueous dispersions of at least one electrically conducting organic polymer that can be used in organic electronic devices (see paragraph 0007). Paragraph 0003 of the Hsu ('942) reference discloses that the organic electronic device comprises an anode/buffer layer/EI material/ cathode and that the buffer layer comprises a PEDOT/PSS dispersion wherein the conductivity is in the range of about  $10^{-3}$  S/cm. Therefore, it would have been obvious to one of ordinary skill in the art to have the conductivity of the PEDOT/PSS dispersion be in the range of  $1.2 \times 10^{-4}$  S/c to about 10 S/cm in order to prevent cross-talk between pixels.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.U. 1774 4/25/05